

# Advanced Digital Arts and Media

Chris Eller  
Advanced Visualization Lab  
Indiana University

September 22, 2017

Eller, Chris. "Advanced Media." 22 Sept 2017. Digital Tools & Visualization Methods for Humanists Series. Scholars' Commons, Wells Library, Indiana University, Bloomington. Retrieved from: <http://hdl.handle.net/2022/21714>



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<https://iu.box.com/v/advancedMedia>



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# Digital Arts and Humanities Workshop Series – Fall 2017

Fridays @ noon -- Scholars Commons IQ-Wall

Date	Topic	Presenter
<del>Aug. 25</del>	<del>Intro to Visualization</del>	<del>Michael Boyles</del>
<del>Sep. 1</del>	<del>Intro to Digital Humanities</del>	<del>Tassie Gniady</del>
<del>Sep. 8</del>	<del>Virtual Reality</del>	<del>Bill Sherman</del>
<del>Sep. 15</del>	<del>Intro to R</del>	<del>Tassie Gniady</del>
Sep. 22	Advanced Media	Chris Eller
Sep. 29	Augmented Reality	Chauncey Frend
Oct. 13	R for Text	Tassie Gniady
Oct. 20	Network Graphs	David Kloster
Oct. 27	IQ-Tables & Touch-Enabled Software Workflows	David Reagan
Nov. 3	3D Scanning & Printing	Jeff Rogers
Nov. 10	3D Photogrammetry	Tassie Gniady
Dec. 1	R for Twitter	Tassie Gniady



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# Happy Birthday Bilbo and Frodo!



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# What is Advanced Digital Arts and Media?

The **Advanced Digital Arts and Media** team embodies IU's long and successful history of supporting the innovative use of advanced IT in creative endeavors. For the arts, the team uses a range of hardware and software to develop custom displays, sensor systems, and interactive interfaces to help realize the artists' creative visions. For advanced media forms, the team proactively explores new technologies, prototypes workflows, provides hardware resources, and educates users.

The team partners with key university departments and initiatives, including the Institute for Digital Arts and Humanities, the Media Digitization and Preservation Initiative, the School of Art + Design and the Media School at IUB, the Media Arts and Sciences program at IUPUI, and the IU Cinema.



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# What Makes it Advanced?

- Still Imagery
  - 360° x 180° photospheres
  - Stereoscopic 3D photospheres
  - Panoramas and ultra-high-resolution images
  - High Dynamic Range images
- Motion Imagery and Video
  - Monoscopic 2D spherical and flat
  - Stereoscopic 3D spherical and flat
  - Time-Lapse and Hyper-Lapse monoscopic or stereoscopic
  - High Dynamic Range motion imagery and video
- Object Capture
  - Photogrammetry
    - A picture is worth a thousand words, an object is worth a thousand pictures
  - 3D scanning
  - Computer aided modeling



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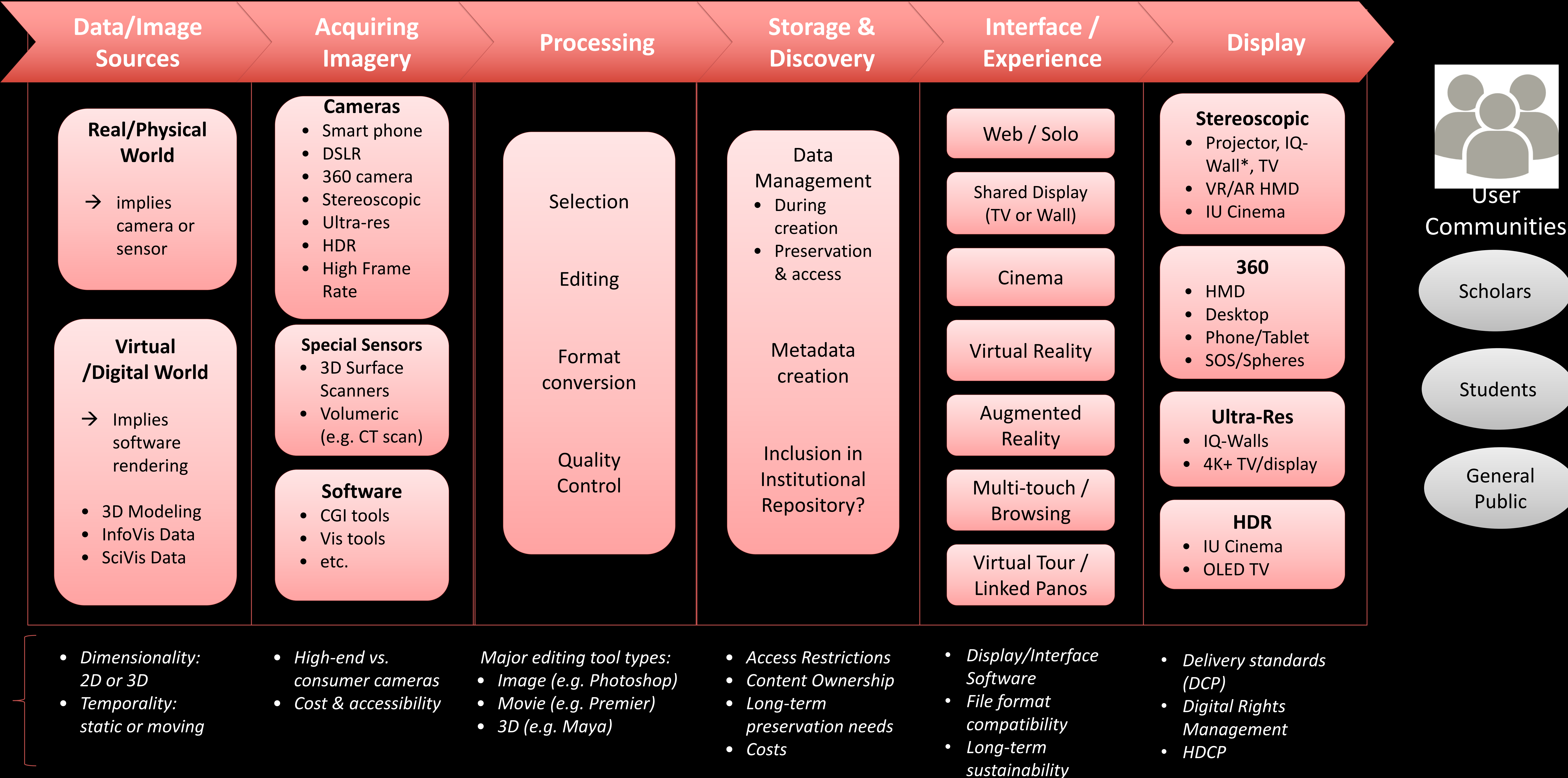
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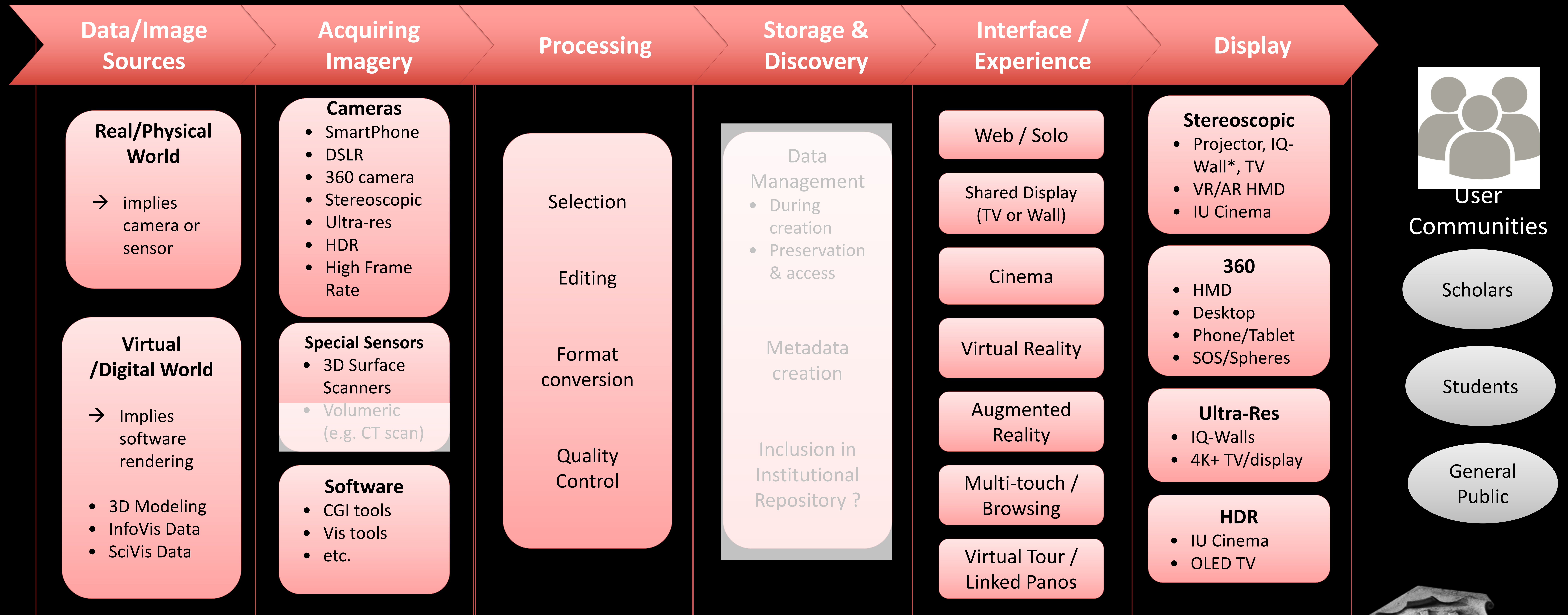


# Advanced Media Overview





# Advanced Media – AVL Expertise



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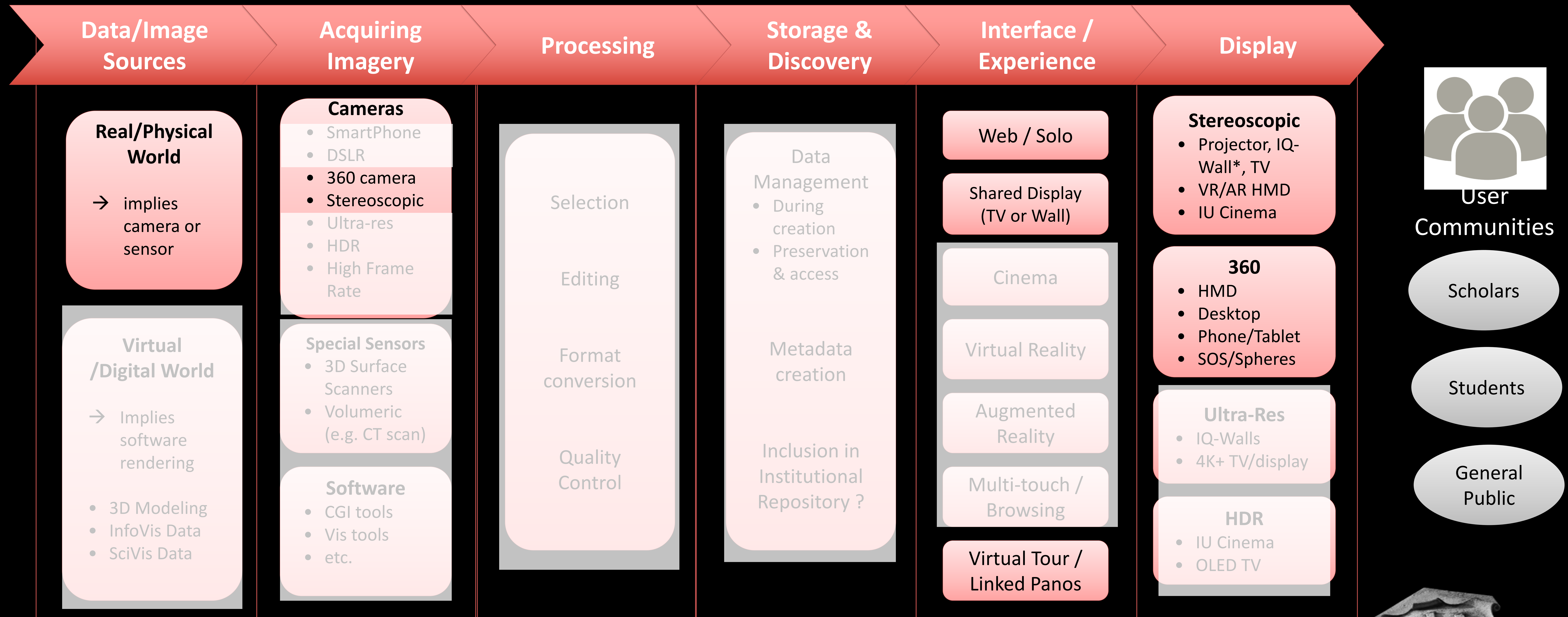
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# Advanced Media – Today's Topics



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# 360° Imagery (specifically 360° by 180°)

<http://showcase.avl.indiana.edu/CFRBS/>

<http://web.avl.indiana.edu/~ceeller/Showcase-Fall-2017/>



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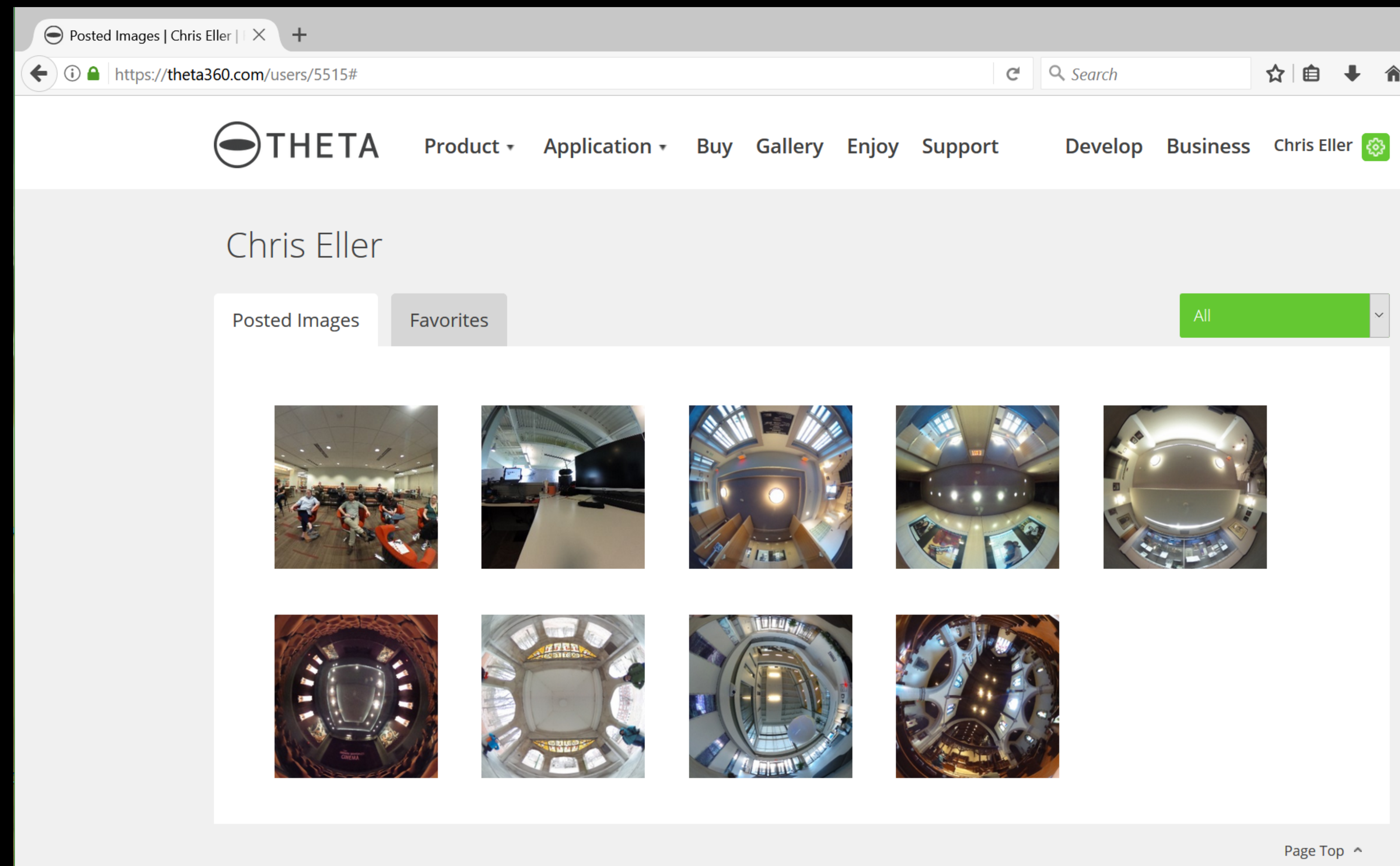


<https://theta360.com/users/5515>

<http://showcase.avl.indiana.edu/CFRBS/>

<http://web.avl.indiana.edu/~ceeller/Showcase-Fall-2017/>

## 360° Imagery (Ricoh Theta workflows)



krpano.com



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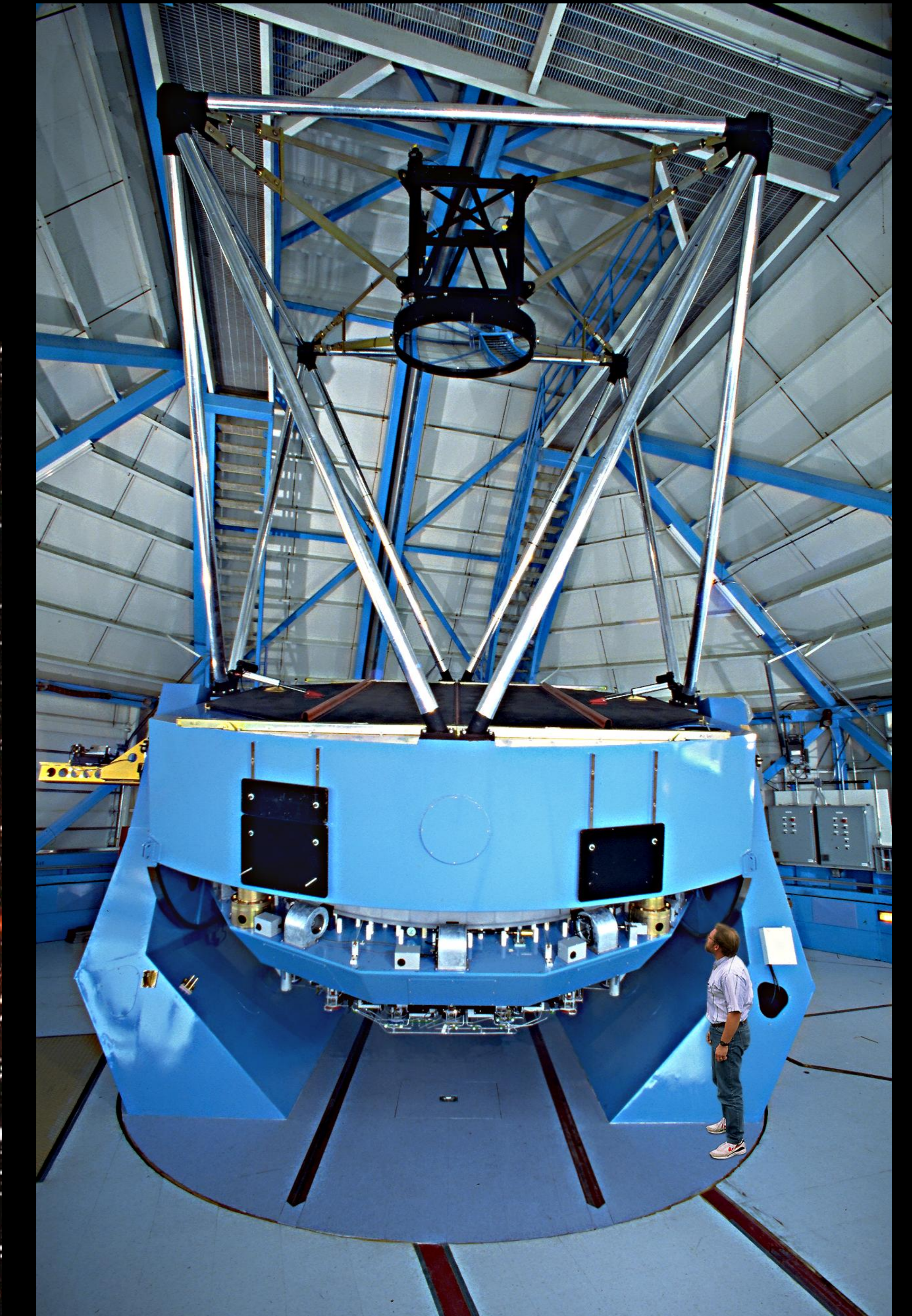
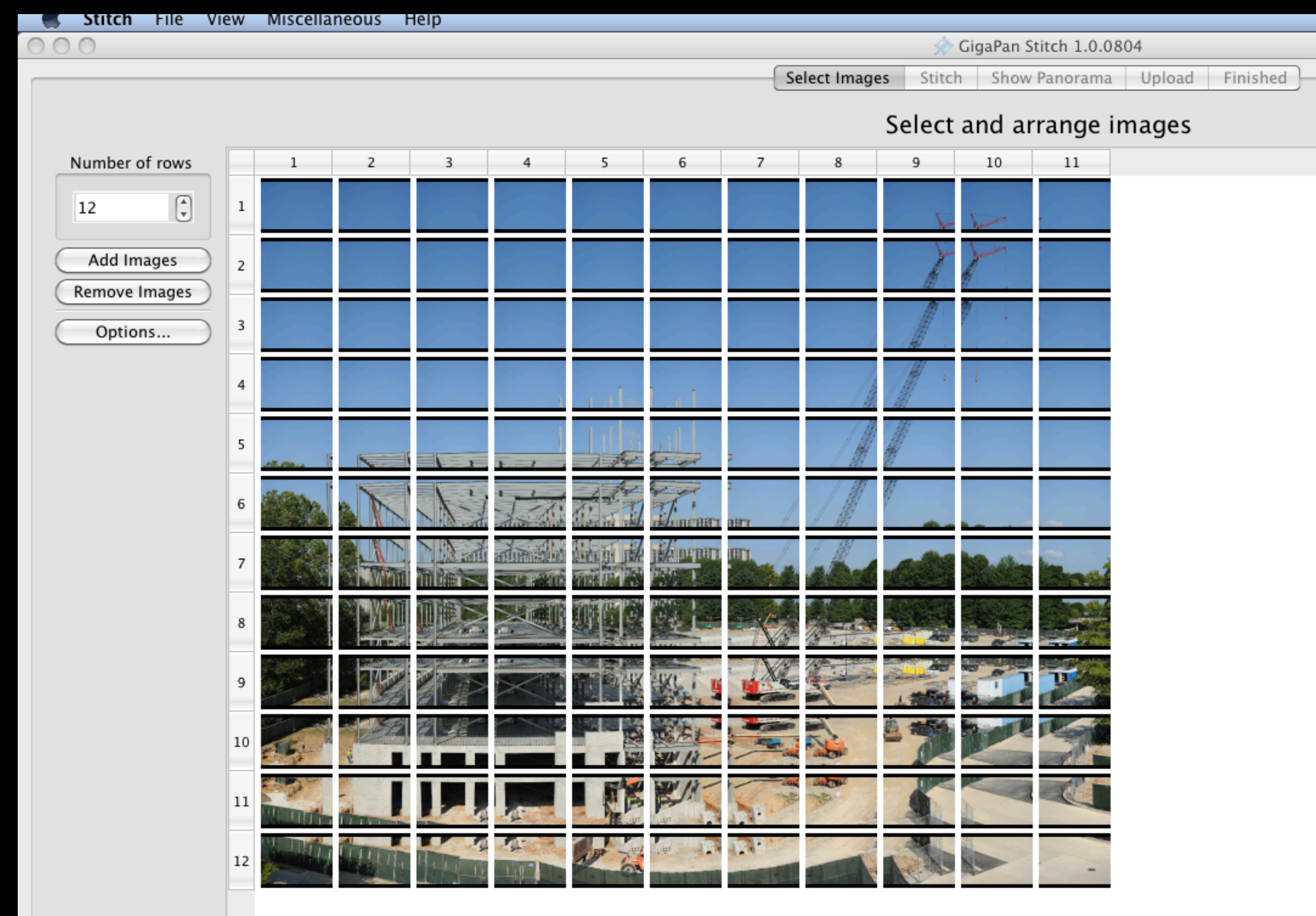






# Ultra-resolution Imagery

<http://web.avl.indiana.edu/~shermanw/>



WIYN 3.5 meter telescope

<http://web.avl.indiana.edu/~ceeller/Panoramas/TravisRector/>



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# 360° Video

(monoscopic and stereoscopic)



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360° Video  
(monoscopic and stereoscopic)



Ricoh Theta App  
Humaneyes VR Studio  
Adobe Premiere Pro



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# 360° Spaces via the Matterport camera (monoscopic and stereoscopic)



<https://my.matterport.com/show/?m=4FXijnxaBcJ>



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# 360° Display Options



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# 360° Display Options Smartphone HMDs



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# 360° Display Options

## HTC Vive



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# Contact

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